

myScience: Citizen Science Project Discovery & Public Engagement Web Application

Megan Hines, *University of Wisconsin Madison*

**Sally Holl, Deanna Terry, Justin Robertson, *USGS
Texas Water Science Center***

August 14, 2013



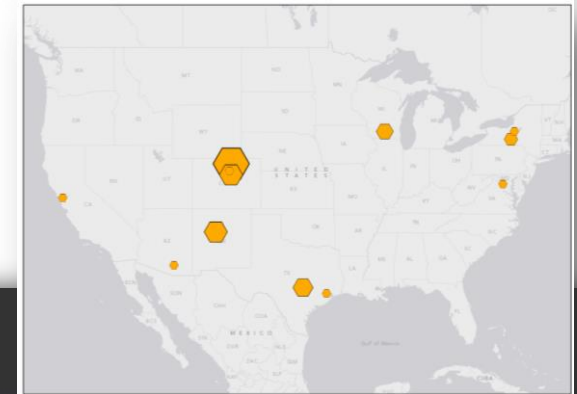
Outline

- Background
- Project
- Progress Report
- Future Work



Background

- Barbara Poore Spreadsheet
- CDI Citizen Science Working Group (CSWG)
 - Citizen Science Project Inventory
- Core Science Analytics & Synthesis (CSAS)
 - Citizen Science Cyber-infrastructure



The Current Landscape of Public Participation in USGS Science

Introduction



About the CDI Citizen Science Working Group

The CDI Citizen Science Working Group (CSWG) is a group of USGS scientists and staff who are interested in citizen science. The group was formed in 2014 and has since been working to develop a framework for citizen science at USGS. The group's mission is to develop a framework for citizen science at USGS that is based on the following principles:

- Citizen science is a form of science that involves the public in the scientific process.
- Citizen science is a form of science that is based on the principles of transparency, accountability, and openness.
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Water

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Natural Hazards

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Biology and Ecosystems

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Invasive Species

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Mapping and GIS

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Summary

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References

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CDI Citizen Science Working Group (CSWG)
Citizen Science Project Inventory
Core Science Analytics & Synthesis (CSAS)
Citizen Science Cyber-infrastructure

Citizen Science Project Inventory

- Project metadata
- Find speakers, insight, collaboration
- Share with other USGS Offices
- Respond to RFIs
- Provide content to posters, handouts
- Internal and external value



Projects = Cooperative Partnerships

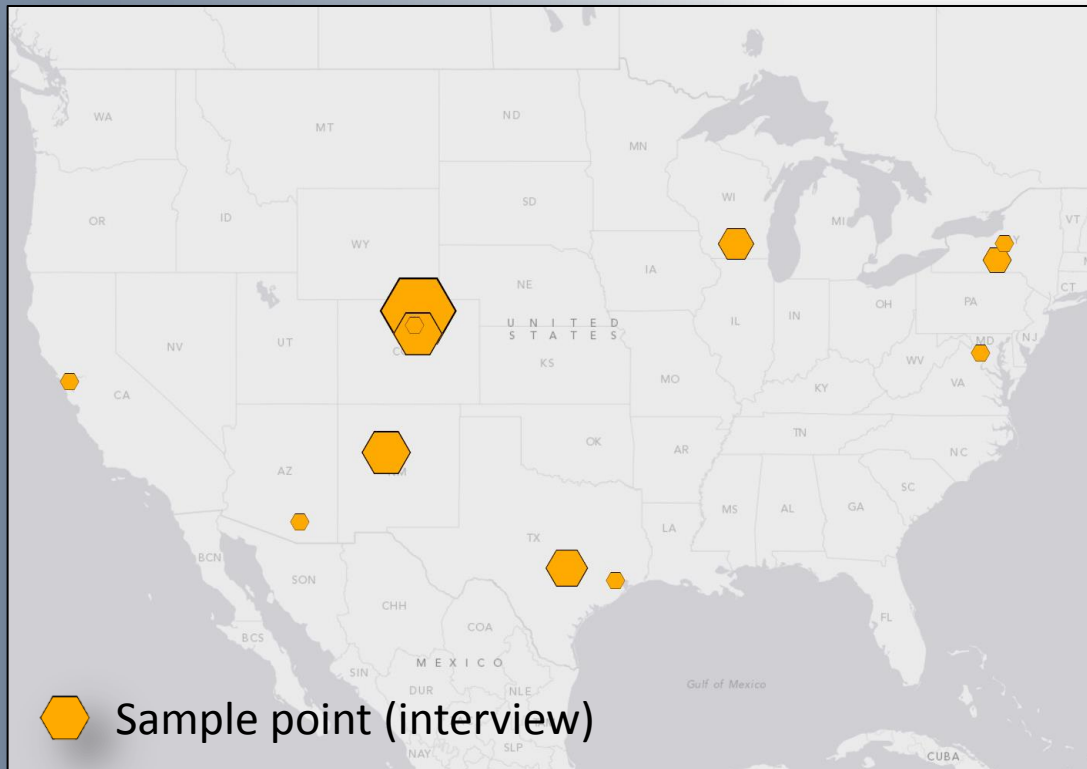
*Acadia National Park,
Cuyahoga Valley National Park,
Indiana Dunes National
Lakeshore,
Pictured Rocks National
Lakeshore,
Pt. Reyes National Seashore,
Sleeping Bear Dunes National
Lakeshore,
Voyaguers National Park,
Universities in Turkey and the
Czech Republic,
Portland State University, Clean
Water Services,
Hawaii Geographic Information
Coordinating Council,
Maui Economic Development
Board,
Women In Technology (WIT),
Hawaii's Natural Resources &
Invasive Species Committee,
Bishop Museum, American
Museum of Natural History,
Center for Biodiversity and
Conservation,*

*Appalachian Mountain Club
(AMC),
New York - North Jersey Young
Members,
New York Entomological Society,
Proteus Gowanus
Interdisciplinary Gallery and
Reading Room,
Discover Life,
Canadian Wildlife Service,
National Wildlife Research
Center,
Geophysical Institute of the
University of Alaska Fairbanks
(UAFGI),
State of Alaska Division of
Geological and Geophysical
Surveys (ADGGS),
B. Thomas Golisano College of
Computing & Information
Sciences - Rochester Institute of
Technology,
Division of Geological and
Planetary Sciences – Cal Tech,*

*US Fish and Wildlife Service,
NatureServe,
NOAA,
Great Lakes Environmental
Research Laboratory,
Aquatic Nuisance Species Task
Force,
Habitattitude,
EDDMapS,
Smithsonian Environmental
Research Center,
USDA,
Protect Your Waters,
Stop Aquatic Hitchhikers!
campaign, Reef Environmental
Education Foundation,
iMapInvasives,*

...and many more!

Citizen Science Cyber-infrastructure Research



- How are citizen science projects conducted at USGS now?
- What are the cyber-infrastructure requirements of USGS scientists to engage the public in research?
- <https://my.usgs.gov/confluence/display/aesir/myScience>

Policy

- DOI and Federal policies need to be addressed or created

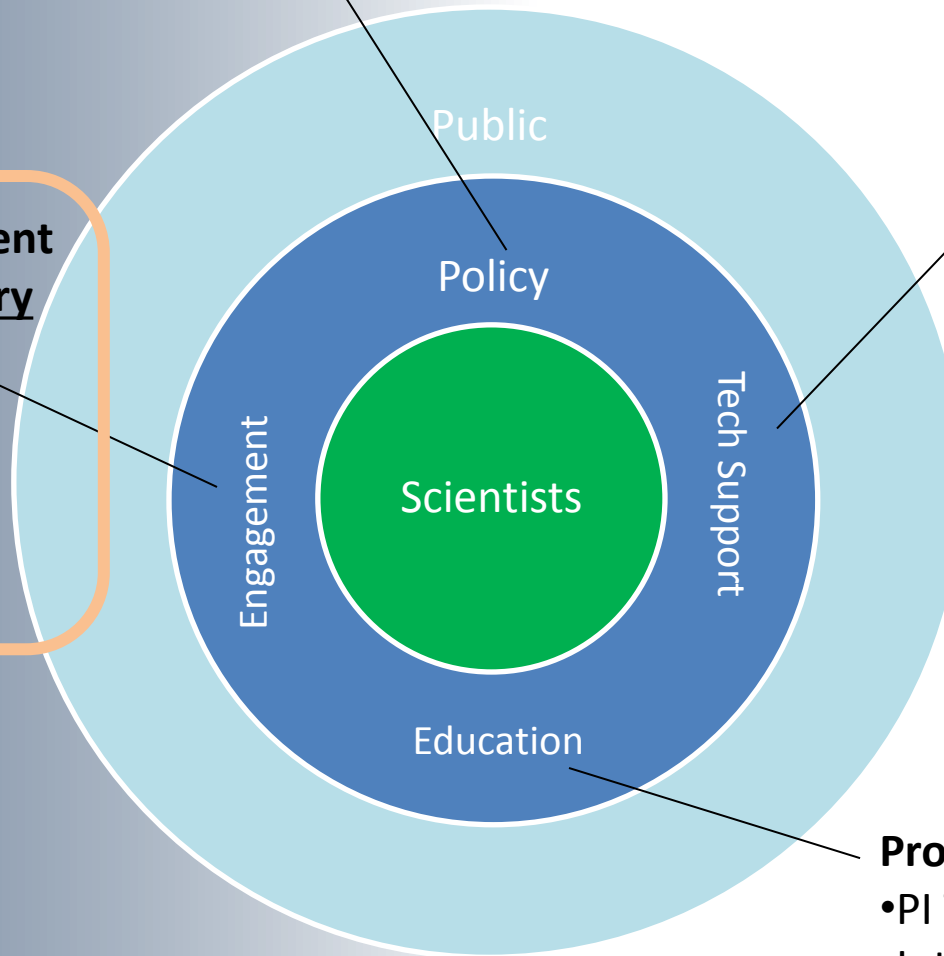
Tech Support

- Data Storage and Access
- ScienceBase
- Choice of platforms
- Choice of methods
- Open ID access

Public Engagement

•Project discovery

- Services
- Social support
- Intra-agency communication (address silos)



Professional Development

- PI Toolkit
- Intentional Design
- Perception & Proven results

USGS Citizen Science Cyber-infrastructure Requirements

myScience: Citizen Science Project Discovery & Public Engagement Web Application

- How may the public discover opportunities for participation in USGS scientific research?
- What citizen science projects with USGS involvement are currently active?
- How may project leads increase public engagement in and awareness of their citizen science projects?

myScience: Closes the loop



myScience: Content & Audience

- 22 projects in the original inventory
 - At least one contact within USGS
- Citizen Science Internal Audience
 - USGS scientists who are engaging or who would like to engage the public in their research
 - The person who registers a project may be different from the project lead because projects are highly collaborative
- Public Web Presence Audience
 - Any person who wants to find out how to become involved with a citizen science project in which the USGS has a role



myScience: Products

- Citizen Science Internal
- Public Web Presence
- Database
- Web Services
- Fact Sheet

Begin date: 6/10/13

Completion date: 9/30/13

The screenshot shows the 'PROJECT QUICK SEARCH' interface. At the top, there's a 'FEATURED PROJECT: NORTH AMERICAN BIRD PHENOLOGY PROGRAM' with a photo of two birds. Below this is a search form with fields for 'pick a topic', 'pick a location', and a 'search' button. A link to 'or use advanced search form' is also present. The main section is titled 'SEARCH DIRECTORY' and contains a list of search criteria: Topic, Location, Target Age Group, Time Commitment, Mission Area, Project Status, Skill Level, and Project Type. Each criterion has a dropdown menu. At the bottom, there's a 'Search by keyword:' field with 'search' and 'reset' buttons. The footer indicates 'Page 1 of 1, Items 1 to 2 of 2'.

Citizen Science Internal (USGS)



- Enter and edit project metadata
- No login required – uses Active Directory
- Easy creation of new projects
- Assign edit access to other users
- Internal project profile view
- Basic + detailed information
 - Monitoring protocols, spatial extent, partners
- Community of practice

Citizen Science Internal

Citizen Science Internal

User Projects

Your Projects

| | PROJECT NAME | BEGIN DATE | DESCRIPTION | WEBSITE | FACEBOOK | TWITTER | PUBLIC |
|---------------|---|---------------|------------------------------------|----------------------|----------|---------|-------------------------------------|
| ▶ |  North American Amphibian Monitoring Program (NAAMP) | | | Link | | | <input checked="" type="checkbox"/> |
| ▶ |  Alaska Volcano Observatory | | This program provides simple i ... | Link | | | <input checked="" type="checkbox"/> |
| + New Project | | | | | | | |

All Associated Projects

| | PROJECT NAME | BEGIN DATE | DESCRIPTION | WEBSITE | FACEBOOK | TWITTER | PUBLIC |
|--|---|---------------|------------------------------------|----------------------|----------|---------|-------------------------------------|
| | North American Amphibian Monitoring Program (NAAMP) | | | Link | | | <input checked="" type="checkbox"/> |
| | Alaska Volcano Observatory | | This program provides simple i ... | Link | | | <input checked="" type="checkbox"/> |

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U.S. Department of the Interior | U.S. Geological Survey

Page Last Modified: March 3, 2013

Citizen Science Internal Project Page

Citizen Science Internal

[Home](#) [North American Amphibian Monitoring Program \(NAAMP\) Profile](#)



Basic Information

Project Name:

Begin Date:

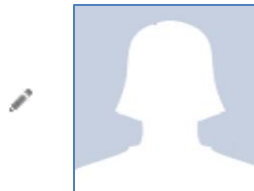
Website:

Facebook:

Twitter:

Contacts

PRINCIPAL INVESTIGATOR



Linda Weir
lweir@usgs.gov
301-497-5932
20708



+ Add New Principal Investigator

CONTACTS



Linda Carter
lcarter@waterconservation.com
512-927-3500
78754



+ Add New Contact

Description

Location

Audience

Data & Protocol

Partners

Additional Resources

Description

Public Web Presence

- Featured Projects
- Quick Search
 - Key word
 - Location
 - Text entry
- Advanced search
- Project Detail Pages

The screenshot displays the myScience directory website. At the top, there is a 'PROJECT QUICK SEARCH' section with dropdown menus for 'pick a topic' and 'pick a location', separated by 'OR' options, and a 'search' button. To the right, a 'FEATURED PROJECT: NORTH AMERICAN BIRD PHENOLOGY PROGRAM' is highlighted with a photograph of two birds. Below this, a 'SEARCH DIRECTORY' section contains a form with various filters: Topic, Location, Target Age Group, Time Commitment, Mission Area, Project Status, Skill Level, and Project Type. Each filter has a 'choose' dropdown menu. A 'Search by keyword:' text input field is also present, along with 'search' and 'reset' buttons. At the bottom, it shows 'ALL PROJECTS' with a pagination indicator '1' and 'Page 1 of 1, items 1 to 2 of 2'.

Search Directory

PROJECT QUICK SEARCH

pick a topic ▼

- OR -

pick a location ▼

- OR -

search

*or use advanced
search form*

FEATURED PROJECT: NORTH AMERICAN BIRD PHENOLOGY PROGRAM



About myScience

Featured Projects

Search Directory

SEARCH DIRECTORY

All projects in the myScience directory are listed below the advanced search form.

To narrow the list down, choose any number of criteria using the form and click the search button.

Topic: *choose topic* ▼

Mission Area: *choose mission area* ▼

Location: *choose location* ▼

Project Status: *choose status* ▼

Target Age Group: *choose target age* ▼

Skill Level: *choose skill level* ▼

Time Commitment: *choose time commitment* ▼

Project Type: *choose type* ▼

Search by keyword:

search

reset

ALL PROJECTS

1

Page 1 of 1, items 1 to 2 of 2.



CLIMATE AND LAND USE CHANGE • WATER
CORE SCIENCE SYSTEMS • ECOSYSTEMS
NATURAL HAZARDS
ENERGY AND MINERALS • ENVIRONMENTAL HEALTH

Project Details

ALASKA VOLCANO OBSERVATORY



This program provides simple instructions on how to take a variety of observations about volcanic ash in Alaska: thickness measurements, measured-area sampling, time incremental sampling, bulk sampling. It gives people the choice to report what they feel able to do. It is not yet available online. These samples help USGS understand the composition, volume, and dispersal pattern of the ash. The area over which ash can fall is large, and ash-fall deposits can be ephemeral. Timely access is often difficult for us. Locals are ideally positioned to collect excellent samples. These instructions describe how to collect a sample of volcanic ash from a recent or ongoing volcanic eruption. We would like two types of samples if possible: (1) measured-area samples and, (2) bulk ash samples. Detailed methods and an information sheet (datasheet) are provided below or as links within the text. (text from OSTP summary and website: <http://www.avo.alaska.edu/ashfall.php>)

Basic Details

Target Audience

Project Contacts

Additional Resources

Join Now!

Location:

unknown

Status:

unknown

Start Date:

Website:

<http://www.avo.alaska.edu/ashfall/ashreport.php>

Facebook:

Twitter:

USGS Topic
Keywords:

observation, volcanic ash, volcanoes

Project Type:

unknown

Focal Species

n/a

External Partners:

Geophysical Institute of the University of Alaska Fairbanks (UAFGI), State of Alaska Division of Geological and Geophysical Surveys (ADGGS)

Facilitate Information Sharing

[home](#)
[project finder](#)
[our blog](#)

[project home](#)
[join in](#)
[discussion](#)
[related projects](#)

Nature's Notebook

get started now!

Observe seasonal changes in plants and animals to improve our understanding of climate change impacts.

Changes in climate are affecting plant and animal activity across the nation. These modifications impact our economy, human health, natural resources and agriculture. Join us-help document how things are changing!

Photo: Brian Forbes Powell

| | |
|--------------------|----------|
| Participation fee | \$0 |
| Expenses | \$0 |
| Spend the time | outdoors |
| Location | anywhere |
| Children | no |
| Primary school | no |
| Secondary school | yes |
| Teaching materials | yes |

Required Gear:

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Citizen Science Central

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[Resources](#)
[Contexts](#)

Projects > USA National Phenology Network >

Nature's Notebook

A national plant and animal phenology observation program.

Nature's Notebook is a national plant and animal phenology observation program of the USA National Phenology Network.

Notebook Projects:
Juniper Pollen Project

Keywords:
Topic - plant and animal phenology
Audience - middle school through adult
Location - USA
Goals - collection of high-quality phenology data

Collaborators:
USA National Phenology Network

Contact:
Theresa Crimmins, Partnerships & Outreach Coordinator
520-792-0481

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159 Sapsucker Woods Road, Ithaca, NY 14850
1-800-843-BIRD | cornellbirds@cornell.edu

Web services: Opens the loop



Future work

- Testing
- Proximity search
- Enhancements
- Continue collaboration with partners
 - Web service development
- Integration with ScienceBase



Questions?

- **Contact**

- Sally Holl: sholl@usgs.gov

- Megan Hines: mhines@usgs.gov

- ***Do you have a project for the inventory?***

- ***Would you like to be a myScience tester?***

...E-mail us!

